REMARKS:

This communication is in response to the office action mailed November 24, 2003 (paper 8). Claims 1-33 are pending in this application, of which claims 1-15 have previously been considered, and claims 16-33 are new.

Claim 1 recites:

A method for visually configuring a product by placing a plurality of selectable components into a plurality of slots, comprising:
(a) initializing a configuration layout with proper state;
(b) receiving a selection of one of the plurality of selectable objects, and of one of the plurality of slots in which the selected object may be placed;
(c) providing visual feedback indicating a validity of the selections;
(d) receiving a placement of the selected object;
(e) receiving input regarding the placement from a remote inference engine;
(f) updating the visual feedback as needed based on the received input; and
(g) repeating steps (b) through (f) until no more selections are received.

The Examiner rejects claim 1 as being anticipated by Templeman (U.S. Patent No. 5,845,303) under 35 U.S.C. §102(b). Applicants respectfully traverse this rejection and offer the following examples of aspects of claim 1 that are not taught by Templeman. These examples are for the Examiner's consideration and are an illustrative subset of the aspects of claim 1 that are not taught by Templeman.

One element of claim 1 recites *"(c) providing visual feedback indicating a validity of the selections."* On page 5 of the current office action, the Examiner characterizes these limitations as "directed toward the system validating the selected component in it's designated position," and suggests that this is anticipated by teachings of Templeman that recite "applications software 78 determines whether any constraints are affected 148 (column 10, lines 44-45)." The Applicants point out that the claim is directed to "providing visual feedback," that this feedback is "indicating a validity," and

that the validity is "*a validity of the selections.*" Thus, claim 1 recites more than just "determining whether any constraints are affected" as the Examiner suggests is taught by Templeman.

Templeman teaches constraints that are used to control layout of selected material (e.g., text) when placed within one or more receptacles (e.g., text boxes). For example, the receptacles of Templeman may modify their size or position to assure that constraints are satisfied when selected text is displayed within the selected receptacle. Within the system of Templeman, a text box may, therefore, be expanded such that the selected text fits within the text box. Thus, the constraints of Templeman are invoked to determine a particular formatting or layout, and the receptacle of Templeman adapts to the selected text such that the constraints are satisfied.

There is no teaching within Templeman of "*a validity of the selections*," as recited in claim 1. In Templeman, *selections* of text and of a receptacle, for placement of the selected text, are not restricted by the constraints and are, therefore, not considered to be either valid or invalid. While, the constraints of Templeman may be used to modify the size of a receptacle or change a font in response to placement of text within the receptacle, this functionality does not include determining a validity of, or otherwise restricting, the *selections* of the text and receptacle themselves. Further, a goal of Templeman is to fit selected text into a receptacle while satisfying a set of constraints, regardless of the particular text or receptacle involved. It would, therefore, be counter to the teachings of Templeman for the *selections* of text and a receptacle to be considered invalid. In this aspect, Templeman specifically teaches away from *selections* that may be

valid or invalid, and thus teaches away from "*a validity of the selections*" as recited in claim 1.

Further, Templeman does not teach "*providing visual feedback indicating a validity of the selections*," wherein the selections relate to selection of objects and slots as recited in claim 1. Any indications that are made in Templeman are not indicative of *validity of selections*. For example, Templeman teaches that a text frame may adapt to the addition of text, and that this adaptation may be visible to a user. However, this adaptation is for the purpose of fitting the text within the text frame and is not intended as visual feedback indicating validity of selections to a user. Further, any visual display that results from the receptacle adaptation is related to validity of different formats or layouts of the text within the text frame, not to validity of selections. Thus, the visual display of Templeman is not meant as an indication to a user, much less as an indication that the selections of text and text box were valid or invalid in the first place.

Templeman teaches away from a visual feedback indicating an invalid format. The purpose of, for example, the change in the size of a text box in Templeman, is to avoid layouts that violate constraints and to generate new layouts in which no constraints are violated. Thus, a goal of Templeman is to avoid indicating that placement of text within a text box is invalid. This teaches away from "*providing visual feedback indicating a validity of the selections.*"

Another element of claim 1 recites "*(e) receiving input regarding the placement from a remote inference engine.*" (The "placement" being the placement of a selected object as per the claim element labeled "*d*"). The Examiner characterizes this claim element as being directed toward an inference engine, characterizes the inference engine

as "all of the intelligence," and suggests that these aspects are anticipated by teachings of Templeman that recite "FIG. 4 includes a number of links ... which demonstrate constraint relationships for each of the frames... A constraint describes a relationship that must hold between multiple variables."

First, Applicants traverse the suggestion that the "*inference engine*" as recited in claim 1 must be defined as "all of the intelligence." The text of the application that is cited by the Examiner to support this definition (page 3, lines 8-10) is merely an illustrative example of prior art terminology. There is ample support within other sections of the specification that show that the "*inference engine*" does not have to be "all of the intelligence." Rather, various embodiments of the "*inference engine*" include specific characteristics that should be considered when comparing the limitations of claim 1 with the prior art. For example, Figure 1 shows an Inference Engine 170 as well as separate and distinct "User Intelligence 140" and "User Interface 100." User Intelligence 140 is shown to include a "Forward-looking rules Implementor 155," an "Encoder of implementation 160," and a "Forward-looking rule table Interpretor 145." Further, User Interface 110 is shown to include a "Graphical Manipulation Enabler 115" and a "Configuration Conflicts Displayer 130." Each of these elements is an example of intelligence that is distinct from Interface Engine 170. Thus, characterizing the "inference engine" as requiring "all of the intelligence" is inconsistent with the teachings of the specification. The Applicants, therefore, request that the Examiner reconsider the rejection of claim 1, to the extent that the rejection is based on the characterization of the "*inference engine*" as "all of the intelligence."

Second, the Applicants traverse the Examiner's suggestion that column 8, lines 39-42 of Templeman teaches an "inference engine" as recited in claim 1. The "*inference engine*" of claim 1 is "*remote*" and has capabilities that include at least providing "*input regarding the placement.*" In contrast, the sections of Templeman cited by the Examiner appear to teach no more than the existence of constraint relationships. As pointed out by the Examiner, (current office action, page 5), the cited text states "FIG. 4 includes a number of links 130, 132, and 134 which demonstrate constraint relationships for each of the frames 82-92. A constraint describes a relationship that must hold between multiple variables." The links shown in FIG. 4 of Templeman are merely illustrative notations used to show "fixed relationships or required constraints" between frames of the figure (col. 8 lines 51-52). For example, "Link 130a represents a required constraint between logo frame 82 and the edge of display device 44," (col. 8, lines 52-54). Thus, the links, which the Examiner suggests teaches the "inference engine" of claim 1, are no more than figure notations for indicating relationships or constraints between objects. The Applicants are unable to find any teaching within Templeman that suggests that links 130, 132, and 134 are anything capable of embodying "intelligence" much less the "remote inference engine" of claim 1. The cited text, therefore, does not teach "*a remote inference engine,*" as suggested by the Examiner.

Third, the Applicants respectfully point out that the element of claim 1 labeled "*(e)*" recites more than just an "inference engine." Rather, the claim element recites "*receiving input regarding the placement from a remote inference engine.*" The Applicants respectfully request that the Examiner specifically point out text within Templeman that teaches an inference engine that is "*remote.*" Further, the Applicants

respectfully request that the Examiner specifically point out text within Templeman that teaches "*receiving input*" from the remote inference engine. Further, the Applicants respectfully request that the Examiner specifically point out text within Templeman that teaches that the received input is "regarding the placement."

The Applicants have not been able to find any, much less all, of the above teachings in Templeman. The only "remote" element that the Applicants have been able to identify in Templeman is "information source 62" discussed on col. 4, lines 25-30. However, it appears that information source 62 is only taught to be a source of information, not to be a "remote inference engine" from which "input regarding the placement" may be received. Rather, Templeman teaches that the "application software 76" and other software elements are located within system 40 (See col. 4, line 36 through col. 5 line 4) which is not remote. This specifically teaches away from a "remote inference engine" as recited in claim 1.

Another element of claim 1 recites "*(f) updating the visual feedback as needed based on the received input.*" The "*received input*" recited is the "*input regarding the placement from a remote inference engine.*" The Applicants are directed, by the Examiner, to column 10, lines 28-33 of Templeman for teachings that anticipate this claim element. In this text, Templeman states

> ... applications software 78 performs the composition and flow of data to frames using an object-oriented composition engine responsive to specific flow, style, and substyles tags 104, 106, 108. As required, applications software 78 grows or shrinks the frame as new lines of text or graphics are composed.

However, the action taught in Templeman by this citation is not in response to the "*received input*" where the received input is "*input regarding the placement from a remote inference engine*". In fact, it appears that Templeman teaches that the

applications software 78 is responsive to "new lines of text or graphics [as they] are composed." This teaches away from updating in response to "[received] *input regarding the placement from a remote inference engine*" as recited in claim 1. The Applicants note that application software 78 is taught by Templeman to be within system 40 and is, therefore, not "remote," (col. 4, lines 24-65) and, thus, should not be interpreted as teaching the remote inference engine.

For the reasons discussed above, and additional reasons not discussed, the Applicants respectfully request that the Examiner allow claim 1.

Claim 2 recites:

A method for visually configuring a product by placing a plurality of selectable components into a plurality of slots, comprising:
(a) initializing a configuration layout with proper state;
(b) receiving a selection of one of the plurality of selectable objects, and of one of the plurality of slots in which the selected object may be placed;
(c) looking up a set of constraints on the placement of the selected object;
(d) receiving a placement of the selected object;
(e) receiving input regarding the placement from a remote inference engine;
(f) implementing the received input;
(g) storing a new set of constraints based on the placement of the selected object; and
(h) repeating steps (b) through (g) until no more selections are received.

With regard to claim 2, the Examiner states that "the claim contains substantially the same subject matter as claim 1, except for the limitation "*storing a new set of constraints based on the placement of the selected object.*" The Applicants respectfully traverse this statement and point out that claim 2 further includes "*(c) looking up a set of constraints on the placement of the selected object;*" and "*(f) implementing the received input;*" which are not recited in claim 1. The Examiner does not discuss these added

aspects of claim 2. The Applicants request that that the Examiner address all limitations of claim 2, or allow claim 2 and those claims that depend from claim 2.

The Examiner suggests that Templeman anticipates "*storing a new set of constraints based on the placement of the selected object*" by disclosing "Determine the Downstream Constraints" in figure 5, reference sign "152." However, the Applicants believe that these citations teach neither "storing a new set of constraints" or "storing ... based on the placement"

In Templeman "downstream" appears to refer to a relative location in a flow of text. See, for example, col. 9 lines 62, 63, and 66-67, wherein the teachings include "*flowing* data to a second page," "incoming data is *flowed*," and "locate another appropriate frame on the current page for the *overflow* information," (italics added for emphasis). Further, see col. 11 lines 36-37 which refers to "text is *flowed*," and col. 7 line 41 which refers to "a text *stream*." Therefore, the use of "downstream" indicates that the "Determine the Downstream Constraints" step of Templeman's figure 5 is a reference to finding the next constraint included in a stream of text, rather than teaching "*a new set of constraints*" that are "*based on the placement of the selected object*."

Furthermore, in the discussion of step 152 at col. 10 lines 47-53 Templeman teaches:

> When it is determined that a frame of a metaform requires a change in size, applications software 78 determines which constraints require solving as a result of that change in size. This includes determining those constraints which are directly affected and those constraints which may be affected downstream 152.

The constraints discussed in this text appear to be preexisting constraints that are affected either directly or affected "downstream." It is thus the Applicants' understanding that the "determination" taught by Templeman is regarding which preexisting constraints require

solving immediately because they are directly affected and which preexisting constraints do not require solving because they are "downstream" in the "text stream." Preexisting constraints are not "new" constraints and, therefore, the determination taught in Templeman is not a determination of new constraints. Thus, it is the Applicants position that there is no teaching in Templeman of "a new set of constraints" that are stored "based on the placement of the selected object."

For these reasons, and others, the Applicants request that the Examiner allow claim 2 and those claims that are dependent from claim 2.

Claim 3 recites:

The method of claim 2, further comprising:
transmitting information regarding the placement of the object to the inference engine.

With regard to claim 3, the Examiner states that "The claim is directed toward the inference engine evaluating object placement. Templeman anticipates the claim. Templeman recites: '*applications software 78 determines whether any constraints are affected 148*' (column 10, lines 44-45)."

First, the Applicants traverse the Examiners statement that "The claim is directed toward the inference engine evaluating object placement." This characterization does not fully describe the claim because, for example, the characterization does not touch upon "*transmitting information...,*" which is the action recited in claim 3.

Second, the text cited within Templeman (column 10, lines 44-45) does not include teaching of "*transmitting information...,*" much less "*transmitting information*" to an "*inference engine*" that is "*remote.*" In fact, the Applicants are not able to find any teaching within Templeman of "*transmitting information regarding the placement of the*

object to the inference engine." Since "*transmitting information...*," as recited by claim 3, is not taught in Templeman, Templeman does not teach all of the limitations of claim 3.

For these reasons, and others, the Applicants request that the Examiner allow claim 3.

Claim 4 recites:

> *The method of claim 2, wherein the step of looking up constraints comprises looking up a forward-looking rules table.*

With regard to claim 4, the Examiner states that "The claim is directed toward considering a rules table. ... Templeman discloses the use of rules in Figure 5. Templeman discloses the step of '*Are any (more) constraints affected?*' (Fig. 5, reference sign 148) and the step of '*Has constraint already been solved?*' (Fig. 5, reference sign 150)."

First, the Applicants traverse the Examiner's characterization of claim 4. This characterization does not fully describe the claim because the characterization does not include the fact that the relevant rules table is "a forward-looking" rules table. The specification points out how "a forward-looking rules table" is distinguished from rules in general. See, for example, the last paragraph on page 10 through the first paragraph on page 12 of the specification as filed.

Second, the text within Templeman cited by the Examiner does not include any reference to a "table" much less "a forward-looking ... table." Both citations merely teach steps that include asking questions about constraints. In fact, it is the Applicants' understanding that Templeman teaches that constraints are included in "metaform 80"

(col. 5 lines 18-20), and that metaform 80 includes unstructured data defined by tags (col. 5, line 53 through col. 8 line 15). This data structure is contrary to use of a "table" as recited in claim 4. Because Templeman teaches storage of constraints in a format other than a table, Templeman does not teach a "rule table," much less "a forward-looking rules table," as recited in claim 4.

For these reasons, and others, the Applicants request that the Examiner allow claim 4 and those claims dependent from claim 4.

Claim 5 recites:

> *The method of claim 4, wherein the step of storing a new set of constraints comprises storing a new forward-looking rules table.*

The comments above with regard to element (g) of claim 2 and claim 4 also apply to claim 5. Templeman teaches neither "storing a new set of constraints" or "a new forward-looking rules table." For these reasons, and others, the Applicants request that the Examiner allow claim 5.

Claim 6 recites:

> *The method of claim 2, wherein the input is received from an inference engine.*

The comments above with regard to claim 1 element (e) also apply to claim 6. Templeman does not teach an inference engine that is remote. For these reasons, and others, the Applicants request that the Examiner allow claim 6.

Claim 7 recites:

> *The method of claim 2, wherein the selection of one of the plurality of selectable objects, and of a slot in which the selected object may be placed, is received via a user interface.*

With regard to claim 7, the Examiner states that "The claim is directed toward a user interface. ... Templeman disclose a user interface in Figure 3A and in Figure 4."

First, the Applicants traverse the Examiner's characterization of claim 7. This characterization does not fully describe the claim because the characterization does not include "*the selection of one of the plurality of selectable objects*" or "*of a slot in which the selected object may be placed*" is "*received via a user interface,*" as recited in claim 7.

Second, the Applicants respectfully point out that Figure 3A and Figure 4, of Templeman, do not teach an interface for receiving "*the selection of one of the plurality of selectable objects.*" The interfaces illustrated in these figures are configured for placing previously selected material within the layout of a metaform and do not appear to include any means for selecting the material to be placed. For example, there are no icons representing "*selectable objects*" that are selectable but not yet selected. In fact, the Applicants are unable to find any teaching within Templeman of how the material to be placed is originally selected.

For these reasons, and others, the Applicants request that the Examiner allow claim 7.

Claim 9 recites:

> *A system for visually configuring a product from a plurality of selectable components, comprising:*
> *a user interface for displaying the plurality of selectable components and a plurality of slots into which the plurality of selectable components can be placed; and*
> *a user intelligence communicatively coupled to the user interface, for receiving a set of constraints from a remote inference engine and implementing the set of constraints.*

With regard to claim 9, the Examiner states that "the claim contains substantially the same subject matter as claims 2 and 7 combined, and is rejected with the same rational."

First, the Applicants traverse this rejection and request that the Examiner allow claim 9 for the reasons discussed above with respect to claims 2 and 7.

Second, the Applicants respectfully point out that claim 9 does not contain substantially the same subject matter as claims 2 and 7 as suggested by the Examiner. Specifically, neither claims 2 nor 7 recite "*a user interface for displaying...*" Claim 2 does not recite a user interface in any form and claim 7 recites only that "*the selection... is received via a user interface.*" Further, neither claims 2 nor 7 recite "*a user intelligence...,*" much less "*a user intelligence communicatively coupled to the user interface, for receiving a set of constraints from a remote inference engine and implementing the set of constraints.*"

Third, the Applicants have examined Templeman and have not been able to identify teachings that anticipate the limitations of claim 9, including those limitations mentioned above. For example, Templeman does not appear to teach "*a user interface for displaying the plurality of selectable components.*" As pointed out above in the discussion of claim 7, the interfaces taught in Templeman display receptacles within which a previously selected object may be placed, but not objects to be selected for placement.

For these reasons, and others, the Applicants request that the Examiner allow claim 9.

Claim 10 is rejected under 35 USC §103(a) in view of Templeman, King et al. (US Patent 6,161,114), and Paseman (US Patent 5,745,765).

Claim 10 recites:

The system of claim 9, wherein the visual user interface comprises:
donors depicting the plurality of selectable components;
receptors depicting the plurality of slots into which the donors can be placed;
a graphical manipulation enabler for implementing drag and drop behavior of the donors into the receptors; and
a configuration conflicts displayer, for updating a visual display responsive to at least one of the plurality of donors being put into at least one of the plurality of slots such that at least one constraint stored on the user intelligence is violated.

With regard to claim 10, the Examiner states, "Templeman discloses the object donors and template receptor as described above." The Applicants are unable to identify this description within the current office action and requests further clarification from the Examiner. For example, there does not appear to be any discussion in the current office action of "*the visual user interface comprises: donors depicting the plurality of selectable components*" as recited in claim 10. Further, in this response, the Applicants have previously pointed out (see claims 7 and 9 above) that Templeman does not teach a user interface configured to display material to be selected for placement in a container. Therefore, Templeman does not teach "donors depicting the plurality of selectable components" as recited in claim 10.

Further with regard to claim 10, the Examiner cites Paseman as teaching the conflicts display feature and offers a citation within Paseman (col. 1 lines 51-53) as support for motivation to combine the teachings of Paseman with Templeman. This citation includes: "This aids the designer in selecting another class of the component for use in the product configuration." However, the "This" of the text cited by the Examiner

is referring to "A feature of the invention allows the designer to identify the properties of components which cause any one component to be eliminated or contradicted," (col. 1 lines 49-51. Because the subject of the cited text is a feature for identifying properties of components, not a conflicts display feature, the cited text does not provide motivation to combine the teaching of Paseman with Templeman relating to the conflicts display feature of the recited claim. The Applicants respectfully request that the Examiner provide motivation for combining any conflicts display feature taught in Paseman with Templeman.

Further, Paseman teaches away from the claimed invention and therefore is not properly combined with Templeman in a 103(a) rejection. For example, Paseman teaches "The invention allows product families which might number in the thousands of parts to be easily described in a limited number of expressions. In contrast, thousands of lines of software code would be necessary in describing the individual parts, which requires expensive maintenance each time product lines are updated," (col. 1 line 31-37). This statement teaches that it would be impractical to describe products at the level of individual parts. The reason given for this impracticality is that "thousands of lines of software code would be necessary in describing the individual parts." This teaches away from the individual part based management possible in the claimed invention. In the current invention the capability and rules tables allow the characterization of thousands of parts without "thousands of lines of software code ... describing the individual parts." It would, therefore, not be obvious to one of ordinary skill in the art to combine Paseman with Templeman.

For these reasons, and others, the Applicants request that the Examiner allow claim 10.

Claim 11 recites:

> *The system of claim 9, wherein the user intelligence comprises:*
> *an interpretor for receiving a set of constraints from an inference engine;*
> *a storage for storing the set of constraints;*
> *an implementor for implementing the forward-looking rules stored in the table; and*
> *an encoder for encoding and sending data regarding a user's current selection from the plurality of donors and the plurality of receptors to the inference engine.*

With regard to claim 11, the Examiner states that "the claim contains substantially the same subject matter as claims 1, 3 and 4 combined, and is rejected with the same rational."

First, the Applicants traverse this rejection and request that the Examiner allow claim 11 for the reasons discussed above with respect to claims 1, 2, 3, 7 and 9.

Second, the Applicants respectfully point out that claim 11 does not contain substantially the same subject matter as claims 1, 3 and 4 combined, as suggested by the Examiner. Specifically, neither claims 1, 3 or 4 recite "*an interpretor for receiving a set of constraints from an inference engine.*" Neither claims 1, 3, or 4 recite "*an implementor for implementing the forward-looking rules stored in the table.*" And, neither claims 1, 3, or 4 recite "*an encoder for encoding and sending data regarding a user's current selection from the plurality of donors and the plurality of receptors to the inference engine.*" The Applicants respectfully request that the Examiner specifically point out these teachings Templeman, or allow claim 11.

For these reasons, and others, the Applicants request that the Examiner allow claim 11.

Claim 12 recites:

> *A system for visually configuring a product from a plurality of selectable components, comprising:*
> *on a client device:*
> *a visual user interface for displaying the plurality of selectable components and a plurality of slots into which the plurality of selectable components can be placed;*
> *a user intelligence communicatively coupled to the visual user interface for determining, by using a forward-looking rules table, the validity of placement of one of the plurality of selectable components into one of the plurality of slots; and*
> *on a remote host device:*
> *an inference engine communicatively coupled to the user intelligence, for storing rules and constraints governing placement of the plurality of selectable components, and for generating the forward-looking rules table.*

With regard to claim 12, the Examiner states, "the claim contains substantially the same subject matter as claims 1 and 7 combined, and is rejected with the same rational."

First, the Applicants traverse this rejection and request that the Examiner allow claim 11 for the reasons discussed above with respect to claims 1 and 7.

Second, the Applicants respectfully point out that claim 12 does not contain substantially the same subject matter as claims 1 and 7 combined. Specifically, neither claims 1 or 7 recite "*a visual user interface for displaying the plurality of selectable components,*" "*a user intelligence communicatively coupled to the visual user interface,*" "*a user intelligence ... for determining, by using a forward-looking rules table, the validity of placement of one of the plurality of selectable components into one of the plurality of slots,*" "*a remote host device,*" "*an inference engine communicatively coupled to the user intelligence,*" and "*an inference engine ... for storing rules and constraints*

governing placement of the plurality of selectable components, and for generating the forward-looking rules table." The Applicants respectfully request that the Examiner specifically point out these teachings Templeman, or allow claim 12.

For these reasons, and others, the Applicants request that the Examiner allow claim 12.

Applicants request that the Examiner allow claims 8, 13, 14 and 15 for the same reasons as discussed above in relation to claims 1 and 2.

New claims 16-29 are added to further claim particular embodiments of the invention, as disclosed in the specification as filed.

New claim 17 concerns configuration rules and a finite number of valid product configurations. The Applicant notes that in Templeman the number of product configurations appears to be infinite because an infinite variety of text may be placed in the receptacles of Templeman.

Amendments to the Specification

The paragraph including page 14, line 4 is replaced with the paragraph below. This replacement paragraph includes the changes shown below and is intended to correct a typographical error pointed out by the Examiner.

Fig. 4 illustrates an example of such user-guided behavior. It can be seen from Fig. 3 that the user selected donor 215 to place in the middle slot of Equipment Frame 1. However, as the object moves over the middle slot of Equipment Frame 1, the user receives an indication that this placement is not permissible, as it would result in a violation of the forward-looking rules. This is evidenced by the cross mark 410 instead of the object in Fig. 4. The user now has a chance to amend her selection. In one embodiment of the present invention, the user may not be permitted to violate a forward-looking rule at all, and may not be allowed, for example, to place donor 215 in the middle slot of Equipment Frame 1, once donor 210 has already been placed in the top slot of Equipment Frame 1. In another embodiment of the present invention, the user may be permitted to violate a forward-looking rule, but the objects which violates a constraint may continue to appear different (for example, an X 410), so as to remind the user that a constraint has been violated. This can be seen in Fig. 5, where both the objects appear as Xs 505 and 410. In figure 6, the user is in the process of dragging an object 310 away from the position which caused the constrained state. The reason there is still an X 505 in the upper left corner is that the user hasn't finished dragging yet, so she has not actually moved out of the constrained state yet. The auction is not complete until she drops the object somewhere, be it in another slot or in the trash. In figure 7 the user has completed the action an dropped the object ~~610~~310 in another slot, which moved the configurator into a state that is not constrained. Thus in figure 7, the X is not visible any more. Instead, all objects 305, 310 can now be seen again.

The paragraph including page 14, line 15 is replaced with the paragraph below. This replacement paragraph includes the changes shown below and is intended to properly reference Figs. 9A and 9B as suggested by the Examiner.

In one embodiment of a system in accordance with the present invention, the system may be implemented over the Internet. This is further described below with reference to Figs. 9A, 9B and 10. In an embodiment, the user interface 110 code may be in one browser frame, and the user intelligence 140 code may be in

another browser frame. In an embodiment of the present invention, the browser frame in which the user intelligence 140 code resides may be hidden, and may not be visible to the user.

The paragraph including page 17, line 12 is replaced with the paragraph below.

This replacement paragraph includes the changes shown below and is intended to properly reference Fig. 9A, as suggested by the Examiner.

Referring to Fig. 9A, it can be seen that in conventional systems, every time that the user made a selection, the user interface 110 on the client device 910 sends 930 the entire page to the inference engine 170 on the server 920. The inference engine 170 on the server 920, in turn sends 940 an entire new page back to the client device 910. Thus a large amount of information needs to be exchanged between the client device 910 and the remote server 920 each time a selection is made by the user. This resulted in the conventional system being slow and inefficient when the intelligence is placed on a remote server 920 with which the client device 910 communicates over the Internet.

It is believed that the above amendments to the specification are sufficient to overcome the Examiner's objections to the drawings.

Applicants believe that all pending claims are allowable and respectfully request that the Examiner issue a Notice of Allowance. Should the Examiner have questions, the Applicants' undersigned representative may be reached at the number provided.

Respectfully submitted,

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